U.S. Department of Energy Transportation External Coordination Working Group July 16-17, 2003 Alexandria, VA

Summary Meeting Notes

The U.S. Department of Energy (DOE) Transportation External Coordination Working Group (TEC) met July 16-17, 2003, in Alexandria, VA. One hundred twenty-one attendees from national, State, Tribal, and local government organizations; industry and professional groups; and other interested parties, met to address a variety of issues related to DOE's radioactive materials transportation activities. These notes represent a summary of comments and views of the attendees and are not exact transcripts of the meeting itself. The notes do not represent final DOE positions or policy and only summarize discussions that may help inform DOE program activities. Key action items or recommendations from the meeting include:

- 1. Establish a Topic Group to explore "Best Practices" in Radioactive Materials Shipments, including a review of the existing transportation Protocols, continue work to identify best practices and lessons learned from previous campaigns, and determine how best to incorporate them into future campaigns.
- 2. DOE should keep an open dialogue with homeland security as a big part of their planning on emergency training and funding and requirements for DOE shipments.
- 3. DOE should consider having a single point of contact for all issues (RW/EM) for both DOE and States. This person should be close to the Director level. This person might not know all the answers, but could lead the caller to the right person.
- 4. DOE should designate speakers based on the issues, regions, phases (single source), and have technical experts trained to communicate information in reasonable language. DOE should consider the trust and credibility issue when planning for communications
- 5. DOE should use States and locals personnel to ensure safe shipping. Communications need to be believable. In most cases, this means having the information coming through trusted locals. This includes the local fire chief or people they work with everyday, not DOE Federal workers (unless invited).
- 6. DOE should use the existing Transportation Protocols Manual.
- 7. DOE should identify stakeholders and get them involved in a two-way dialogue. This will dispel rumors and build credibility. DOE needs to ensure that the right mix of planners is involved including\ radiation workers, public workers, urban planners, etc. Other trusted people include the port authorities, labor unions, and other local emergency personnel.
- 8. The utilities are a good source for training and public outreach. Public outreach should be early, include kids, and be open. This should include MERRTT/WIPP,

colleges, teachers, and middle schools. DOE needs to be prepared to respond to the information going out.

DAY 1: JULY 16, 2003

Patrice (Patty) Bubar, TEC Co-Chair from the Department's Office of Environmental Management (EM) welcomed the participants. She reviewed how TEC works for the new participants and then addressed highlights of the agenda. She mentioned that there are about 190 to 200 EM shipments on the road every day and DOE is extremely interested in receiving input on how the Department can improve its shipment process. Patty explained that the breakout sessions would focus on three facets of transportation: planning and communications, logistics and safety, and emergency preparedness and security.

Jackie Goff, Director for Intermodal Hazardous Materials Programs at the U.S. Department of Transportation (DOT), was then introduced as moderator for the second panel, followed by Jeffrey (Jeff) Williams, the TEC Co-Chair from the Department 's Office of Civilian Radioactive Waste Management (RW). He noted that the agenda for the first day would focus on EM transportation and the second day on RW transportation. Jeff explained that RW has concentrated on site characterization since 1996, and is about 7 years away from shipping.

This section summarizes the discussion during the panel discussions and the breakout sessions, which were structured around best practices and lessons learned from hazardous materials shipping. All panel presentations can be found at the TEC web page: http://www.ntp.doe.gov/tec

PLENARY I – Panel on Best Practices in Radioactive/Hazardous Materials Transportation

Judith Holm, the TEC Coordinator, DOE Albuquerque, introduced the panel on Best Practices. The goal for the panel was to provide lessons learned, good work practices, and other positive and innovative ideas that would help DOE improve their performance.

Roy Brown, Technology Commercialization International, spoke about shipments of radiopharmaceutical materials. Most shipments are short-lived materials and require immediate use. Very short-lived materials are produced on site at hospitals and other medical facilities. About 10 to 15 percent of shipments in this industry are categorized as Radioactive Yellow-III. Gene Gleason, MHF Logistical Solutions-Western Region, spoke next on the creation and objectives of the U.S. Transportation Council and best practices, which included careful packaging and handling, optimizing shipment logistics through re-use of packagings and intermodal transfers and minimizing costs. Cheryl Burke, DuPont Companies, discussed security planning for an open transportation system, risk-based evaluation in order to establish needed security, balancing security against safety when you operate with limited funds – safety should always be in mind, and best practices.

PLENARY II – Panel on Transportation Security Regulations and Practices

Jackie Goff, DOT, moderated this panel. She discussed security and regulatory concerns of DOT and other agencies post-9/11, where hazardous materials were not an initial focus, but were added later. Attention was expanded to include radioactive materials, poison-by-inhalation, and other agents of destruction. The Transportation Security Administration (TSA) was separated from DOT to regulate industry. In addition, the Homeland Security Council and Department of Homeland Security were formed. She noted that hazardous materials transportation must include

security. The issue of removing placarding is off the radar screen for now. James Simmons, FMCSA, presented FMCSA security actions and new regulatory requirements which require more stringent measures for driver checks, development of security plans by carriers, and eliminating un-necessary stops for hazardous materials. Phil Brochman, NRC, described NRC's past and present responsibilities, as well as planned activities related to the Interim Compensatory Measures and orders on Security. John Piparato, Military Traffic Management Command, focused on technologies to enhance safety and security, including cutting edge technology to track shipments and cargo. He described practices in place for commercial military shipments, including tracking, marking and electronic tags for military shipments. John (Jack) Legler, ATA, addressed the carrier perspective including regulatory issues, personnel background checks, and industry needs. He echoed Cheryl Burke's presentation on the balance needed between programs for safety and security. Bob Fronczak, American Association of Railroads, presented activities, products, and security threat levels developed by the Railroad Security Task Force, which was formed after 9/11 to address how to deal with threats to the rail industry. An entire system has been developed to analyze and respond to potential threats. One component was the increased communication among FBI, other federal agencies, and the rail industry.

BREAKOUT SESSIONS: Best Practices and Lessons Learned

Three rounds of breakout sessions discussing best practices were held, each consisting of three concurrent sessions: (A) Planning and Communications, (B) Logistics and Safety, and (C) Emergency Preparedness and Security. The purpose of the breakout sessions was to get ideas and input on:

- Best practices
- Lessons learned
- Process improvements

Each set of breakout notes is organized by subject, includes the questions posed at the beginning of the sessions, and contains summary narrative of the general discussion.

BREAKOUT SESSIONS: Best Practices and Lessons Learned

Three rounds of breakout sessions discussing best practices were held, each consisting of three concurrent sessions: (A) Planning and Communications, (B) Logistics and Safety, and (C) Emergency Preparedness and Security. The purpose of the breakout sessions was to get ideas and input on:

- Best practices
- Lessons learned
- Process improvements

Each set of breakout notes is organized by subject, includes the questions posed at the beginning of the sessions, and contains summary narrative of the general discussion.

Breakout Session A: Planning and Communications

The purpose of this breakout session was to solicit input from industry and associations, as well as State, Tribal and local stakeholders regarding DOE planning and communications for radioactive waste shipments. The following questions were provided to focus the discussion:

- What are key items to be included in planning that are different from current shipment planning?
- What should timelines for planning shipments consider?

- In light of security concerns, how should DOE manage communications for highly visible shipments?
- Given DOE's distributed system of managing shipments, what kinds of organizational planning or communications might help the system be more coordinated?
- What has worked or not worked in planning and communications about shipments?
- What are key lessons learned from panelists for incorporation?

Summary: A common suggestion was for DOE to try and avoid reinventing the wheel for each new campaign. Common elements of successful plans included high level of communications, early planning, financial assistance and training, long lead times. DOE should strive for more consistent, centralized planning by gaining consistency among its own organizations before consulting with the States. It was suggested that one centralized group of planners be used for all radioactive shipments. Certain circumstances may merit going beyond regulatory requirements, including first shipments and sensitive communities, however caution should be taken not to set unreasonable precedents. It is important for DOE to identify the right people at the right level within State and Local agencies in order for planning, coordination, and communication to be most successful. Local responders, and others trusted by the public, can pave the way for shipments to be viewed as safe and routine. It was recognized that there is a need to balance between sharing information and security. There should be a central clearinghouse for waste shipment information and DOE should build on best practices and lessons learned already identified by TEC.

Recommendations: Establish a Topic Group to explore "Best Practices" in Radioactive Materials Shipments, including a review of the existing transportation Protocols, continue work to identify best practices and lessons learned from previous campaigns, and determine how best to incorporate them into future campaigns.

Breakout Session B: Logistics and Safety

Key Questions Addressed in the Breakout

- Highway and rail routing processes include different practices. How can DOE streamline the process to identify routes, work with carriers and coordinate with States and Tribes?
- What should DOE consider as it develops future arrangements with carriers?
- What lessons-learned can be applied to responding to and managing incidents and accidents?
- What issues exist in tracking and how can DOE streamline the tracking?
- Have we identified really critical items for inspection and do we need to request DOE review the program for enhancements and incorporation into DOE policy?
- What has worked well and what has not worked so well and how could those items be improved based on lessons-learned today?

Summary:

This breakout session contained a great deal of discussion on the need for enhanced, open and ongoing coordination prior to transportation planning and throughout the transportation campaign. One specific aspect of transportation planning that the participants said they wanted to be a part of is route planning. The audience stated that coordination with States on route planning would allow DOE to make better and safer choices on routes depending on the State infrastructure and weather conditions. It was also made clear that constant communication and coordination among all parties involved will make inspections run smoother and it will make

notification and response to incidents and accidents more successful. The participants stressed the importance of fully supporting TRANSCOM so the program can be used to full capacity. There was also quite a bit of discussion on the topic of rail transportation and whether dedicated trains are faster and more secure.

Breakout Session C: Emergency Preparedness and Security

Questions for discussions:

- Identify best practices.
- Identify the most useful tools and mechanisms to improve emergency planning.
- Identify how tools have been incorporated at State, local, Tribal levels.
- Identify other useful info or materials.
- How does Homeland Security affect shipment from your vantage point?
- What are some lessons learned from the morning presentations?
- What is the most positive and most negative aspect of DOE approach to emergency planning and security?
- What are the key lessons to be considered?

Summary:

This breakout session started off with discussions about DOE's decision to drop the consolidated grant program and what would replace it. Discussions then led to what funding is actually available from the Federal government and suggestions that DOE coordinate with other agencies the availability of the funds. TEC members also then led to emergency preparedness and the equipment. Not only is money needed for the purchase of the equipment but for the maintenance of the equipment. TEC members also identified best practices commercially and within DOE and recommended that DOE and RW do not reinvent the wheel. Examples of best practices include: Transportation Emergency Preparedness Program (TEPP), WIPP Training, and Industry training programs. DOE should follow-up to ensure training funding is used at the right level. It was recommended that DOE identify routes early allowing sufficient time for training and that emergency responders are trained at all levels - primary, secondary and tertiary. Training needs to be tailored for needs in different areas and DOE must consider the turnover rate of first responders. Training exercises need to be realistic, security sensitive, and should be used as a best practice. Training should be based on a risk approach with more training for higher risk shipments. DOE should ensure that there is coordination with other Federal agency training programs.

For Security, the participants suggested that DOE develop guidelines on what to do when the National Security Threat Level changes; taking into consideration future shipments and shipments en route. DOE should also be aware that withholding information could have the potential to put first responders at a disadvantage. A balance between security and safety needs to be made. Several commenters suggested that first responders need placards and it is the only universal "language." The railroads are willing to explore a replacement for placards such as bar codes. Discussion on national security versus a necessary response included whether or not the public should be told of a radioactive material threat. It was suggested that the general threat be shared, with the details left to those with a "need-to-know." It was recommended that DOE look at commonalities in transport of other materials and in other systems/model programs, for standards.

Recommendations: New Homeland Security rules and regulations could possibly affect the whole planning process. It was recommended that DOE keep an open dialogue with homeland security as a big part of their planning on emergency training and funding and requirements for DOE shipments. DOE should be aware that most big cities are able to respond to security issues, but it will be the small towns that are affected by these shipments and they may not be as prepared.

DAY 2: JULY 17, 2003

Status of the Civilian Waste Program and Cooperative Transportation Planning

Jeff Williams opened the second day of TEC by thanking all of the participants for the fruitful breakout session discussions on the previous day. He reminded the group that the findings of the breakout groups for both days would be summarized before the close of the meeting.

Margaret Chu, Director, Office of Civilian Radioactive Waste Management, was introduced and gave an update on the status of the RW program. Yucca Mountain has been studied for 20 years to determine its scientific attributes and suitability as a waste repository. In July 2002, Congress passed the Joint Resolution approving the site at Yucca Mountain, NV, for the development of a repository for the disposal of high-level radioactive waste and spent nuclear fuel. In October 2002, Margaret realigned RW for Phase II of the project, which involves design, licensing, and construction. John Arthur has been named Deputy Director, and a separate transportation program was formed and is now led by Jeff Williams.

DOE plans to submit its NRS license in 2004. The NRC review will take 3 to 4 years (dictated by Nuclear Waste Policy Act) and approval will result in construction authorization. This is expected by December 2007 or later. Prior to receipt of waste, DOE will apply for a license amendment. RW's objective is for safe, secure, efficient, and with public confidence, shipment of high-level radioactive waste and spent nuclear fuel to the Yucca Mountain repository in 2010. In preparation, RW has reactivated and accelerated its transportation planning activities such as: acquisition of transportation casks and equipment, route selection, coordination of safe and secure shipments, development of transportation campaign plans and protocols and coordination with emergency responders. Despite funding constraints in 2003, RW allocated funding to four regional State associations and is programming funding for FY04 for consultation with Tribes. Margaret has met with the National Academy of Sciences (NAS), Congress, and the Nuclear Waste Review Board, informing them that interface with States is very important for this program to succeed. She plans to build on their input and the EM process for radioactive shipments in developing the RW plans and protocols.

The best practices, regulations, and planning and communications breakouts are very important to EM and RW. Dr. Chu suggested that TEC offers a valuable cross-section of ideas and real experience in transportation and she hoped that the States, Tribes, and industry will help with development and testing activities to help RW move forward in the design, licensing, and construction of Yucca Mountain and its transportation system. RW is committed to cooperative planning and incorporation of lessons learned. They are also seeking feedback on forums for future interactions. TEC input and key points will be synthesized/categorized and incorporated into the RW Transportation Strategic Plan. She was unsure whether individual review will be accommodated, but she said that the document would be very high level and a living document, so changes can be incorporated. The Operations Plan will be more detailed and will be more important for TEC and others, including regional groups to comment on during development.

Jeff Williams presented the new OCRWM organization, provided an overview of the breakout sessions in which OCRWM requested information, which could assist with their thinking about the transportation system. He expressed his condolences for the recent passing of Elissa Turner.

BREAKOUT SESSIONS: OCRWM Strategic Plan

Three rounds of breakout sessions discussing best practices were held, each consisting of three concurrent sessions: (A) Cooperative Planning, (B) Safety and Security, and (C) Transportation Infrastructure. The purpose of the breakout sessions was to get ideas and input on:

- Strategies/assumptions/expectations for incorporation into the Transportation Strategic Plan
- Building on the positive EM cooperative planning experience
- Lessons learned from previous campaigns (e.g., FRR, West Valley)
- Feedback on the WIPP model and possible improvements
- Safety planning process, including Homeland Security issues of States and Tribes
- Expectations and considerations to be included in the Transportation Strategic Plan
- Feedback on sufficiency of DOE's "Radioactive Material Transportation Practices Manual" (protocols) and possible improvements
- Event planning (i.e., 70,000 tons/175 shipments over 24 years)
- Identify barriers to meeting objectives

If participants have additional input related to the RW planning process, they can send them to Corinne Macaluso via email: Corinne.Macaluso@rw.doe.gov.

Each set of breakout notes is organized by subject, includes the questions posed at the beginning of the sessions, and contains summary narrative of the general discussion.

BREAKOUT SESSION A: Cooperative Planning Process

Questions for the discussions:

- What cooperative planning issues should be addressed in order to achieve the objective of ready to ship in 2010?
- What roles would States, Tribes, local governments, and other stakeholders play in the communication process?
- Strategies for resolution of key issues and priorities (e.g., routing, pre-notification, emergency responder preparedness).
- Elements of successful, open, accurate and timely communications and outreach process, and identifying areas that may conflict with security needs
- What would an integrated transportation system look like? Picture/describe it.

Summary of Discussions:

Participants recommended that DOE (RW) should not reinvent the wheel but use lessons learned and best practices and build on the experience and success of past successful shipping campaigns. It is important that DOE identify the right stakeholders early in the process and have credible cooperative planning. It was recommended that public outreach be done by the State and local people with support from DOE. Public outreach is most often successful when the message is from people in the community. Participants also recommended that DOE have a single point-of-contact for both DOE and the States for transportation related issues. The group agreed that information should be disseminated on a need-to-know basis with these levels predetermined.

RW should also use the existing regulatory process and modify as needed. Stakeholders from State and local governments also expressed the importance of keeping the original planned shipping dates. A recommendation was also made that RW look at resources for planning and information sharing from students/universities.

COMMUNICATION

Questions for the discussions:

- How should DOE communicate to the public, Congress, etc?
- Close in planning around the campaign how do you inform about a public program?
- Who needs to know what?

Summary: DOE should target outreach to the affected public. The public that is NOT affected may not have the interest. DOE should identify stakeholders, which will be different at each level over the life of the shipping campaigns. Stakeholders should include third party and responsible consumer groups (e.g., Association of American Retired Persons (AARP). DOE should educate the public about response and successfulness of prior campaigns and emphasize safety. DOE should spend time and communicate with the locals to learn of local issues. DOE should not only talk about cost, but also have a discussion on cost vs. risk. Risk should be a focus with a goal of an efficient and safe shipment. DOE should know that the more rural the area the better a shipping campaign will be accepted The closer DOE gets to the actual shipping dates the more likely there will be campaigns by those opposed to the repository and transportation activities DOE needs to have a communication program that describes the safety of these shipments. DOE should consider the trust and credibility issue when planning for communications. DOE should identify stakeholders and get them involved in a two-way dialogue. This will dispel rumors and build credibility. DOE needs to ensure that the right mix of planners is involved including radiation workers, public workers, urban planners, etc. Communications need to be believable. In most cases, this means having the information coming through trusted locals. This includes the local fire chief or people they work with everyday, not DOE Federal workers (unless invited). The locals can be "sales agents" for DOE if done properly. Other trusted people include the port authorities, labor unions, and other local emergency personnel. The utilities are a good source for training and public outreach. Be aware that in some communities utilities can be the "bad guy." Public outreach should be early, include kids, and be open. Some mechanisms to do this include: MERRTT/WIPP, colleges, teachers, and middle schools.

The Table below illustrates the timeline and actions that constitute the "cooperative planning" sequence of activities developed by the breakout groups. This Table represents the collective thoughts of all the Planning breakout groups in response to the question about how they would envision the process to develop the transportation system being implemented in the next seven years.

TABLE 1: Cooperative Planning Group Integrated Transportation System/Timelines for OCRWM

		Themes, Comments,
Year	Issue/Decision Needed	Ongoing Issues
2003	Institution/regulatory framework issues	Stakeholders:
	Record of decision – NV route and mode	Define who they are at each step

Year	Issue/Decision Needed	Themes, Comments, Ongoing Issues
	 NEPA process (takes 48 months) DOE go to Homeland Security to begin the dialogue. Also talk with internal DOE, DOT and NRC 	along the way, and invite them in early (ongoing) DOE dialogue and discussion with community, reactors and states
	 Incorporate transport planning documents from 1990-2; policy and procedures on 180(c) Planning: look at site of origin, destination site, so 	(ongoing)
	can plan: handling capabilities, all physical constraints, mode selection, equipment selection and procurement	
2004	General Commerce vs. dedicated train (an issue for Hamaland Sagarity also)	Communication Plan: Communication about the
	Homeland Security also) Influencing factors: Presidential and Federal elections First law suites from utilities about not moving waste will be settled – damages paid	plans/project (ongoing) Training: Some felt training needs to start early, others felt it could start no later than 2007, based on 180(c)
	• Land Withdrawal Bill NV – take land out of public domain	
	Identify routes (sequentially(a) the NV interchange decision; (b) start out with States where you know routes will need to go) Probable made of transport.	
2004-	 Probable mode of transport Decide about fuel handling and waste inspection: 	Host State:
2005	when, where, route to Yucca Mountain	Special involvement of host State
	Design/procure transportation cask fleet; work with industry on facility site infrastructure to plan up front the design criteria	(ongoing)
	Private Fuel Storage initiative and how affects DOE	
	 interface (may be ready by 2006) 180 (c) funding dollars: build cadre of trained management, begin the training process 	
	 Realistic routing (from point A to point B) 	
2005	• License application completed; NRC has 3 to-4 years to respond/complete.	
	• Regional response to routing, transportation routes in NV – a 30 percent total plan (need something to talk about when you begin to talk to people about this)	
2006	Route identification complete	
2007	 Training: Representative road exercises "show and tell" First responder training 	Training: Queuing contracts – not all need to be trained at once
2008	 Completed NRC approval (if started in 2005) 	or trained at once
2008	Readiness reviews	
2010	 Keadiness reviews Shipping target date Stick with shipping dates for shipments – for 	

		Themes, Comments,
Year	Issue/Decision Needed	Ongoing Issues
	security reasons, and for logistical reasons	
Past	• If NRC application completed in 2008, takes	
2010	possibly 4 years to complete the rail line.	

Breakout Session B: Safety and Security

Topics for Breakout

- Strategies for integrating operational responsibilities of States, Tribes, carriers, DOE, and other Federal agencies.
- Expectations for integrated safety plan ensuring safety in all aspects of the transportation system.
- Discussion of current transportation, security, and safety regulatory structure and of current strategies for ensuring that all regulations are met.
- Lessons learned from other rad shipping programs.
- Strategies for addressing the continued changing environment in security planning processes since 9/11.
- Strategies for communicating safety and security objectives and actions to the public.
- Strategies for maintaining security while achieving objectives of advanced notification, routing, and emergency response.
- Strategies for protecting worker safety (e.g., vehicle operators, inspectors, and emergency responders).

Summary:

Participants suggested that OCRWM obtain stakeholder comments on the Transportation Strategic plan, and the plan itself should identify routes and modes, areas of disagreement between DOE and States, as well as DOE's safety goals. A common suggestion was for OCRWM to avoid reinventing the wheel and build on successful EM planning. It is crucial for DOE to identify the right people at the right level within State and Local agencies in order for planning, coordination, and communication to be most successful. Training and information dissemination should be tied together. Dry runs and full-scale testing helps test operational capabilities and enhance public confidence. However, recognize dry runs may not be as easy to apply with rail as with truck, so table-tops, which have been successful for past shipments) were suggested. There were varying viewpoints on the use of dedicated trains ranging from the view that they help ensure safety and gain public confidence to the opinion that they are not key to safety (safety is inherent in the package) but is an operational or traffic management consideration. It was recommended that DOE use a risk-based approach to identification of funding goals and to project a safety culture within the program. Homeland security efforts should be integrated into shipment planning. It was recognized that there is a need to balance between sharing information and security.

Recommendations: Timeliness and accuracy of information was identified as an area that needs to be further addressed as a group action of TEC. Specific problems were cited involving incorrect or outdated contact information, or people DOE should have contacted in certain situations but did not (e.g., changes in shipping schedule, etc.).

Breakout Session C: Transportation Infrastructure

- Strategies for configuring the current cask and transportation fleets in such a manner as to provide: versatility in accommodating fuel types, transportation modes, and routing considerations; maximum flexibility while retaining simplicity for repository operations; and scalability to match a phased repository waste acceptance approach.
- Strategies for identifying gaps in the transportation fleet.
- Strategies to address potential external factors that may prevent OCRWM from achieving its
 objective.
- Strategies for integrating carrier, State and Tribal roles for rail and truck shipments.
- Strategies for incorporating emerging cask and transportation equipment technologies and designs, as well as changes in regulatory standards and requirements.
- Strategies for the use of Federal or contractors' resources in the development and operation of the transportation system.

Summary: Participants stressed that any type of new technology needs to be analyzed to assure that it will be beneficial and will still allow transportation plans to be flexible. There was quite a bit of discussion about transportation infrastructure that exists along shipping route and whether States will be required to upgrade that infrastructure. Other transportation topics that were discussed were barge shipments and the receptivity of using barges for radioactive materials transportation in certain areas of the country, the percentage of shipments that would be made via rail versus highway and the way inspections are handled. One additional topic that was discussed was training and dry runs and that demonstrations, training and dry runs should all begin, in that order, as soon as possible in preparation for RW's transportation campaigns.

Closeout Session

The TEC meeting concluded with short summary presentations of both days' breakouts. Those presentations and the TEC list of attendees and the presentations from the Panel Plenary sessions can be found at http://www.ntp.doe.gov/tec.